

SOME OF THE KEY POINTS OF SUPERVISOR-WORKER COMMUNICATIONS

1. You and every other supervisor are for safety, but it doesn't mean a thing unless your men know it.
2. Mr. Foreman, the things you say mean a great deal to your men. In their eyes you're a lot bigger fellow than you realize. To them you represent the company.
3. Talking safety with your men builds a better attitude toward safety and toward the company.
4. Talking it over generates ideas that can make ~~the~~ whole department safer.
5. Let your men know that it's smart to be safe, that it takes brains.
6. Talking with your people should be casual, just two men talking things over.
7. Start a safety conversation by saying some simple thing like "darn good safety shoes, and good looking, too."
8. You won't run out of things to say because when your men find that you want to talk, they'll keep thinking of things to talk about.
9. When a man doesn't respond, ask him a question. Most men have got ideas. Sometimes all it takes is a little encouragement to start him talking.
10. Once you get the habit of talking with your men, they can get through to you and you can get through to them.
11. When you bawl a fellow out it's like setting off an explosion. He gets unhappy and usually nothing gets straightened out. So don't bawl him out. Correct him.
12. Talk with all your men often, so that it gets to be an ordinary every day thing.
13. When talking becomes an everyday thing, and you have to remind someone to do something differently, he'll feel you are trying to help him.
14. You're not being a good guy to look the other way when you see a fellow doing something wrong. If you don't correct him, he thinks its O.K. and keeps on doing it.
15. Give a couple of people the brush-off and before long the word spreads until everybody in the department quits trying to talk to you.
16. You can get cooperation from your men if you'll just come right out and ask them to help you.
17. When you want your people to work with you, don't do everything yourself. Let everyone get into the act, and give them credit.

KILLER PHRASES WHICH CHLOROFORM IDEAS AND PUT MEN'S MINDS TO SLEEP

1. We tried it before.
2. Our place is different.
3. It costs too much.
4. That's not my job.
5. We're all too busy to do that.
6. We don't have the time.
7. Not enough help.
8. The men will never buy it.
9. It's against Company policy.
10. We've never done it before.
11. We don't have the authority.
12. That's not our problem.
13. Why change it, it's still working O.K.
14. Top management would never go for it.
15. Let's shelve it for the time being.
16. It just won't work here.
17. Can't teach an old dog new tricks.
18. Let's give it more thought.
19. We'll be the laughing stock.
20. Not that again.
21. Where did you dig that one up?
22. We did all right without it.
23. It's never been tried here before.
24. Has anyone else ever tried it?
25. What's the use.
26. I don't see the connection.
27. It won't work at this mine.
28. You're right . . . but . .
29. Let's all sleep on it.
30. Never get by with it.
31. Union will never go for it.
32. It's a good idea - but not at this time.

3344

Emil Bell.

Quincy Mining Co.

RULES
AND
REGULATIONS
FOR THE PROTECTION
OF
EMPLOYEES

1912

TO ALL EMPLOYEES OF THE QUINCY MINING CO.

In order that proper steps be taken for the protection of the Company and its employes, in view of the enactment of the Workmen's Compensation Law, which has recently gone into effect, the President of the Company calls the attention of the Superintendents and Foremen, as well as the employes generally, to certain features of the law, and to certain regulations which will hereafter be strictly enforced.

I

The Distinctive Features of the New Law

1. The law applies to all employes who have not given notice in writing of an election not to be subject to the provisions of the Act. Since no such notice has been given within the time limited, all the employes of the Company are subject to the Act, and persons hereafter employed will also be subject to the Act, unless at the time of the entry of the contract of employment they give notice in writing that they elect not to be subject to the provisions of the Act.

2. The term "employee" does not include any person whose employment is

but casual or is not in the usual course of the business of the Company.

3. An employe who receives a personal injury arising out of or in the course of his employment becomes entitled to compensation in the manner provided by the law.

4. But if the employe is injured by reason of his intentional and wilful misconduct, he cannot receive compensation.

5. Nor is he entitled to compensation for any injury which does not incapacitate him for a period of at least two weeks from earning full wages.

6. The employe cannot maintain proceedings for compensation for injury under the Act unless a notice of the injury shall have been given to the employer within three months after the happening thereof and unless a claim for compensation is made within six months after the occurrence of the injury or within six months after death or after the removal of mental or physical incapacity.

7. The compensation is based upon the "average working wages." This term is defined to be one-fifty-second ($1/52$) part of the average annual earnings of the employe. If the employe is not working for a year, his average annual earnings consist of three hundred times the average daily wage or salary which he has earned during the days he was employed.

II

Department of Safety Inspection

There is being organized a Department of Safety Inspection, the chief of which is an engineer whose office and telephone call will be at the head office of the company at the Quincy Mine, Michigan.

The duties of the Department of Safety Inspection will be:

(1) To make rules and regulations respecting the shipment, storage, distribution and handling of all explosives, and to see to it that such rules and regulations are in all respects strictly complied with.

(2) To make rules and regulations respecting the timbering and supporting of the mine.

(3) To make rules and regulations respecting the hanging and covering of electric wires.

(4) To make rules and regulations respecting the covering and protection of exposed machinery or parts of machines which are exposed.

(5) To make rules and regulations respecting the prevention and extinguishment of fires, aid to the injured, the ambulance service, call of physicians, etc., and to see that such rules and regulations are strictly enforced.

(6) It is the duty of all employes of the company, for a failure to perform

which they will be subject to discharge, to notify the Department of Safety Inspection of any personal injury to an employe of which they may have knowledge, and also to notify the Department of Safety Inspection of any defect, want of repair, or situation of any character dangerous to person or property, of which they may have knowledge, and which they have reason to believe has not been brought to the attention of the Department.

(7) The Chief of the Department of Safety Inspection shall upon receiving notice of a personal injury to any employe, forthwith notify the General Manager of the company, and shall make a detailed report of the occurrence, giving the names of all persons having any knowledge or information respecting the injury and the cause thereof.

(8) It shall be the duty of the Safety Inspector or his assistants to go down into each shaft daily and inspect the places in said shaft at which any work is being done, in order to see that the rules and regulations prescribed by the Safety Inspection Department are being complied with.

III

1. Each employe of the company shall be required to sign a statement in writing setting forth the terms and con-

ditions of his employment and the precise nature and scope of the work which he is employed to do, and be in good physical condition.

2. Whenever any injury shall have occurred to an employe, the Safety Inspector shall forthwith notify the Medical Director of the Company, who shall cause a personal examination of the employe to be made promptly.

3. In case of an injury to any employe, as soon as the report thereof has been submitted by the Safety Inspector, the Company, in accordance with the provisions of the Act, will make compensation to the employe as provided for under the law.

WM. R. TODD,
President.

The Quincy Mining Company hereby gives notice to each employe in its service that he is to use the utmost precaution while at work, against all manner of accidents to himself or his fellow employes.

It is well understood that perpetual contact with conditions in which lurks the element of danger, tends to breed carelessness and contempt of danger on the part of those at work in such surroundings. This situation renders it peculiarly necessary that employes filling positions of responsibility—those who have men working under them and dependent to a large degree upon them for the safety of their lives during working hours, or those in charge of appliances liable to cause accident if not kept in proper order—should be constantly on their guard to reduce to a minimum all danger from working in unsafe places or with insecure apparatus.

In this crusade for safety, it is desired not only to enlist the support of employes in responsible positions, but also to engage the earnest attention and hearty co-operation of every employe from the top to the bottom of the scale. Every employe is accordingly expected to abide by the rules herein submitted, not merely obeying the literal injunctions laid down in them, but also following out to the extent of his ability all that is implied in them concerning the safety of every human life involved in the performance of the Quincy Mining Company's operations.

The earnest co-operation, therefore, of every employe is requested in this matter of prime importance to himself and his fellow workers, as it is felt that anyone failing to fall in line with these regulations cannot profitably be retained in the Company's service. At the same time, the Quincy Mining Company wishes to assure all of its workers that their willingness to co-operate with these requirements will be appreciated, and that every suggestion regarding means of securing greater safety in its operations will be gladly received at all times.

CHAS. L. LAWTON,
General Manager.

**RULES AND REGULATIONS ADOPTED
BY THE QUINCY MINING COMPANY FOR
THE PROTECTION AND SAFETY OF
EMPLOYEES.**

Surface

S-1. All roadways about the location must at all times be kept safe for travel of employes and others. Railway tracks should be avoided.

S-2. Railroad crossings must be marked with suitable signboards.

S-3. All shafts, caves, and abandoned workings must be carefully fenced, or otherwise protected.

S-4. The change-house at each shaft must be kept clean and in the best sanitary condition.

S-5. In all mine buildings, provisions must be made for the safety of men from accidents due to underground openings and stairways.

S-6. Structures must at all times be kept in safe condition.

S-7. When you complete a job, never leave tools or material lying overhead. Tear down all temporary scaffolds when you are through with them. Do not al-

low boards with nails sticking up to lie around anywhere.

S-8. Do not pile material so high that it is liable to fall.

S-9. Extra care must be taken not to let anything fall from loading platforms in rockhouses.

Buildings

B-1. All railings protecting employes from coming in contact with moving parts of machinery, must be kept in perfect condition and repair.

B-2. All railings to stairways and along stairways must be kept in perfect condition and repair.

B-3. All employes are prohibited from riding on elevators.

B-4. All employes are forbidden being in any department buildings where their duties do not call them.

B-5. All employes are forbidden every part of the property where their duties do not require their presence.

Hoisting Machinery

H-1. It shall be the duty of every hoisting engineer to keep a careful watch over his engine and over all machinery under his charge.

H-2. All hoisting machinery and all ropes and hoisting apparatus shall be in-

spected, and report made to the proper official as to any defects found therein.

H-3. Whenever the men are being hoisted or lowered and the man-car is stopped a little above or below any level, the car must not be moved again until the engineer is notified by signal bell.

H-4. The oiler, or assistant engineer, must be on the foot-board with the engineer whenever men are being hoisted or lowered.

H-5. A sudden start is to be avoided at all times. A sudden stop is not allowable unless the proper signal—indicating danger or accident—is given.

H-6. When skips are to rest on gates, they must be hoisted *a few feet only* above the gate; then the engineer, upon receiving the proper signal, must lower the skip on the gate very gradually.

H-7. Skips must be hoisted *very* slowly in the dumps in the rockhouse.

H-8. All unauthorized persons are positively forbidden access to the engineer's platform, or to engage in conversation with the engineer when he is on duty.

H-9. Nothing but the strictest attention on the part of the engineer will be tolerated at any time.

H-10. It shall be the duty of every hoisting engineer to familiarize himself with, and carry out the requirements of the Company as they concern his duties.

Hoisting Ropes

R-1. Worn or broken places in ropes shall be reported at once to the proper person.

R-2. All ropes, skips, and man-cars must be inspected once in every 24 hours by some competent person designated for that purpose.

R-3. Ropes shall be treated with oil or rope compound at least once every two months, or at any other time when considered necessary to properly preserve the hoisting rope.

Crushers

C-1. Work around the crushers in the rockhouses is dangerous, and extra care should be taken by the men so employed.

Underground Mining

M-1. All mining work is hazardous; extra care should be taken, not only for your own safety, but for the safety of the men working with you.

M-2. The Captains shall see that all dangerous places underground are properly fenced off. This applies to working levels only, or to places used as passageways.

M-3. The general condition of the timbering in the mine shall be safe. The men shall take all the necessary precau-

tions to insure the safety of the timber in the working places.

M-4. Existing winzes, or stope openings directly from the floor of the drift or stope must be kept covered by a substantial hatch, or plank, except when in use, and then must be suitably guarded.

M-5. The miners shall be responsible for the safety of the roof and walls of their working places.

M-6. Employes shall inform the Captain, or shift-boss, of the unsafe condition of any working place.

M-7. All chutes are to be protected, so that men cannot fall into them.

M-8. No raise shall be allowed to approach within ten feet of any portion of a winze, stope, or other opening in which there is a dangerous accumulation of water.

M-9. When advancing a drift toward a mine opening that is suspected to be filled with water, a bore hole must be kept at least twenty feet in advance of the breast of the drift, and also, if necessary, in directions laterally from the course of the drive.

M-10. All sumps shall be securely planked over.

M-11. No lamp shall be left burning in the mine after the person using lamp departs from his work for the day.

M-12. When hoisting or lowering

men, the man-car shall be kept free of tools, timber, and material of all kinds.

M-13. Special instruction shall be given, that no man shall get off or on to a man-car before it comes to a dead stop. Anyone caught violating this rule will be immediately discharged.

M-14. At all times, special care shall be given to trimming down the back and sides of all openings, and particularly so after each blast.

M-15. Captains and shift-bosses must set the example for the men in carrying out all rules of safety.

M-16. The shift-boss, or other designated official, must be the last man up at the end of each shift.

M-17. No person shall be allowed to ride on underground cars where electric power is used for haulage purposes, except the motor-man and car dumpers.

M-18. No person shall be allowed to run an underground motor, except the regular motor-men.

M-19. No person shall ride on the man-car other than on the proper seats provided for same.

M-20. The last skip up on either shift must bring up copper rock only.

M-21. All explosives taken from skip on "Powder Day" must be immediately taken away from shaft by the miners using same.

Ladder-Ways

L-1. All defects in shaft ladder-ways must be reported at once.

L-2. All ladders shall be kept in perfect, serviceable condition.

L-3. If it is not practicable to have ladder extend above manhole, at least have iron staple to allow good handhold.

Shafts

Sh-1. Men engaged in sinking a new shaft, or in deepening a shaft, shall be protected from the danger of falling material, by a suitable covering extending over the whole area of the shaft, sufficient opening being left for the passage of men, bucket, or other conveyance used in the sinking operations.

Sh-2. The timbers in all manways in daily use shall be cleaned of all loose rock lodged upon them, at least once a week. Manways in daily use shall be kept clear of obstructions.

Sh-3. All new stations shall have a passage-way around the working shaft, so that crossing over the hoisting compartment may be avoided.

Sh-4. At all shaft stations a guard rail back of shaft and guard ropes across the shaft must be provided and kept in place, except when a skip is being loaded.

Sh-5. Special care must be taken to keep the signaling apparatus in good order.

Explosives

E-1. In view of the fact that so many accidents occur in the use of explosives, no person will be permitted to handle them without a proper knowledge of the same.

E-2. No explosives shall be taken into the mine except in a securely covered case.

E-3. No person shall be allowed to carry powder and blasting caps at the same time, except when taking supplies into the stope or drift where the material is to be used.

E-4. Blasting caps shall not be stored with explosives.

E-5. In tamping drill holes, wooden rammers only shall be used. Tamping by strokes is forbidden and only direct application of pressure permitted.

E-6. Great care must be used in handling explosives near electric current.

E-7. Whenever a drift, raise, or other opening, is about to be holed, signals must be exchanged on opposite sides, or guards must be stationed on the opposite sides, to warn off anyone from approaching until blasting has been completed.

E-8. Miners about to fire shots shall cause warnings to be given in every direction, and all entrances to the place, or places, where charges are to be fired, shall be guarded while such firing is going on.

E-9. The number of shots exploding shall be counted by the miner firing same, and any mis-fires shall be reported both to the shift, or level boss, and to the miner on next shift; and in no case whatever shall they attempt again to blast such missed holes without acting under the instructions of the shift-boss, or captain.

E-10. Miners shall not extract, or attempt to extract, explosives from a hole which has once been charged, but in every such case a fresh charge shall be inserted above the missed explosive, and the same shall then be blasted. Miners shall not deepen holes, or any part of holes, left standing or abandoned, or holes previously charged with explosives.

E-11. Cap crimpers are furnished to all miners and must be used.

E-12. When crimping blasting caps, the greatest care must be taken not to squeeze the explosive composition; they must never be crimped with the teeth, for there is enough composition in one of these small capsules to blow a man's head off.

E-13. Don't fire a shot before everyone is out of danger and protected from flying debris. Protect your supply of explosives also from danger from this source.

E-14. Don't hurry in seeking an explanation for a mis-fire. Take plenty of time before you approach a mis-fire—never less than thirty minutes.

E-15. Don't use frozen, or chilled dynamite.

E-16. Don't thaw dynamite on heated rocks, brick, or metal.

E-17. Don't smoke while you are handling explosives.

E-18. Don't handle explosives so near a light that there is danger from the flame or sparks.

E-19. Don't throw or allow packages of explosives to fall violently.

E-20. Don't store blasting caps in the same box containing explosives.

E-21. Don't allow explosives or blasting caps to lie around loose in places where you are working.

E-22. Don't carry blasting caps in your pocket, and don't tap or otherwise investigate the same.

E-23. Don't attempt to remove blasting caps from boxes by inserting wire nails or any sharp instrument.

E-24. Don't leave explosives, fuse, or caps, in a wet place.

E-25. Don't force a stick of explosive with cap and fuse attached into a hole.

E-26. Explosives are forbidden to be carried on motor-car trains, either motor, or cars.

Underground Electric Haulage Levels

EH-1. Don't carry tools on your shoulder when traveling along an electric haulage level.

EH-2. Don't ever cause anyone to receive an electric shock.

EH-3. Don't be ashamed to be careful. You owe this, not only to yourself, but to others, who may follow your example.

EH-4. Don't carry your explosives near the electric wires.

General Application

G-1. All complaints or suggestions concerning any unsafe conditions of the mine shall be immediately reported to the Captain.

G-2. No boy under the age of 16 shall be employed in or around the mine.

G-3. No person in a state of intoxication shall be allowed to enter or loiter about the property or any of the company's buildings.

G-4. No intoxicating liquors shall be taken into the mine.

G-5. Strangers or visitors will not be allowed underground.

G-6. Every employe whose duty requires him to work with appliances of any kind must carefully examine same and report any defect to his foreman.

G-7. Employes are forbidden to take short-cuts over dangerous places.

G-8. Employes must not leave their work to go to other parts of the mine, except upon company business.

G-9. Every employe should report promptly to proper officer any defect affecting the safety of any employe.

G-10. Vigilance and watchfulness insure safety. To avoid danger, adopt the safe course. Employes must not trust entirely to the care exercised by others when their own safety is involved.

G-11. If there are no special rules covering your work, use common sense and report anything to your foreman that you think may cause an accident.

G-12. If the underground rules fit the surface conditions, use same; likewise, surface rules are to be applied to underground conditions when they fit.

Accidents

A-1. In case of an accident to an employe, you are to report same immediately to the shift Captain, who will comply with the provisions covered by the company's report blank.

A-2. If you are injured, no matter how little, go to the doctor. A slight injury may cause blood poisoning.

Suggestions as to safety and improvement will be appreciated and given consideration. **PROMOTE SAFETY WHEREVER POSSIBLE.**

incorporated

Setting the Stage (credit)

↳ where does this come from

in 1848

Quincy Mining Company

Hancock, Michigan

• MINE • MILL • SMELTER • COMMUNITY •

Discoveries of large masses of native copper set off a mining boom on Michigan's Keweenaw Peninsula in the mid-1840's. As a participant in this boom, the Quincy Mining Company was formed in 1846 and formally incorporated in 1848. Like many other mining companies, Quincy got off to a poor start. It had to weather a full decade of misfortune before the investors' dreams began to be realized. In its early years, the company was short of capital, and following the exploration of its property - Section 26 - it was also short of copper. Quincy was close to failure when, in 1856, the neighboring Penabie Mine discovered the Penabie Lode of amygdaloid copper. This lode, some 12 to 15 feet thick at the surface, contained "native" or metallic copper that had been deposited in the voids left by gas bubbles in surrounding lava rock.

Quincy traced the route of the Penabie Lode onto its property, and thorough explorations from 1856 to 1858 proved that it carried profitable quantities of copper. Between 1859 and 1862, Quincy evolved from a speculative venture into a productive mine. It built its first complete physical plant, and in 1862, when it produced 2.1 million pounds of ingot copper, the company finally paid its first dividends.

Quincy's profitability fell off only briefly after the Civil War, and then the company earned the moniker of "Old Reliable" by putting together a string of dividend-paying years that stretched from 1868 until 1920. Over this time span, Quincy's labor force grew from approximately 500 to 2,000, and its production rose to a high

of 22 million pounds of copper in a single year.

In gross terms, Quincy's technology passed from a pre-mechanized into a highly mechanized era: Quincy went from hand drills, black powder and small buckets hoisted with windlasses -- to one-man air drills, high explosives, electric locomotive haulage, and massive steam-powered hoists. Quincy had as many as 6 shafts in operation at once, and it was the deepest mine in the Western Hemisphere in 1930. Besides the mine proper, Quincy maintained a corporate office in New York City; company housing and community services; a succession of stamp mills on Portage and Torch Lakes that treated the mine rock and prepared it for smelting; and after 1898, its own smelter on Portage Lake.

As the mine went deeper, going down as far as 9,200 feet, Quincy became a high-cost producer, and its profitability came to depend on high copper market prices. After 1920, due to an unfavorable market, Quincy's profitability ceased. The company struggled on until 1931, enduring a decade of losses before finally closing the mine. Buoyed by an increased demand for copper and by World War II price guarantees, the mine reopened in 1937 and operated until 1945. By the time of the mine's second closure, Quincy had paid out \$27,000,000 in dividends and had produced 848,000,000 pounds of copper.

Although the mine on Quincy Hill stopped providing copper rock, the company continued to produce copper for some time, using its reclamation plant on Torch Lake. This World War II facility "mined" or reprocessed the tailings (waste sands) deposited in the Lake after 1890 by

Quincy stamp mills. The plant extracted the copper that had been missed earlier and transported it to Portage Lake for smelting. Although it produces no copper today, the Quincy Mining Company still survives.

The Historic American Engineering Record (HAER) of the Heritage Conservation and Recreation Service, U.S. Department of the Interior, documented the Quincy Mine in the summer of 1978. HAER is a long-range program for documenting historically significant engineering and industrial works in the United States. The Quincy Mine Recording Project was cosponsored by HAER; the Michigan History Division, Michigan Department of State; the Quincy Mining Company; the W. Parsons Todd Foundation; Michigan Technological University; and the Quincy Mine Hoist Association.

The field work, measured drawings, historical reports, and photographs were prepared under the general direction of Douglas L. Griffin, Chief, HAER. The recording team consisted of Larry D. Lankton, HAER, Project Supervisor; Charles K. Hyde, Supervisory Historian; Richard K. Anderson, Jr., Architectural Supervisor; Sarah A. McNear, Charles F. O'Connell, Jr., and Cathy D. Silverstein, assistant historians; Jon R. Carter, Eric M. Hansen, Dianne M. Pohlson, and Durward W. Potter, Jr., architectural delineators; and Kevin E. Johnston, assistant engineer. Formal photography was done by John T. Lowe, III.